(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 8 July 2004 (08.07.2004)

PCT

(10) International Publication Number WO 2004/057236 A2

(51) International Patent Classification7:

F23R

(21) International Application Number:

PCT/GB2003/005624

(22) International Filing Date:

22 December 2003 (22.12.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 0230070.5

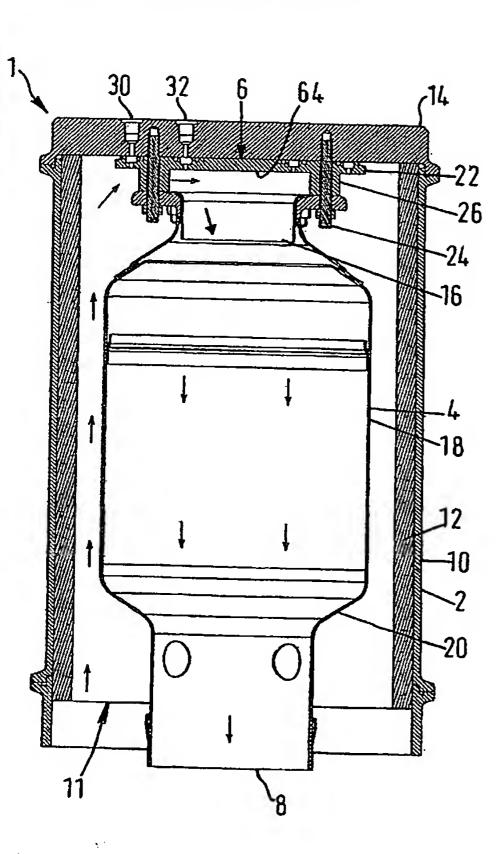
23 December 2002 (23.12.2002) GB

- (71) Applicant (for all designated States except US): BOW-MAN POWER SYSTEMS LIMITET [GB/GB]; Ocean Quay, Belvidere Road, Southampton, Hampshire SO14 5QY (GB).
- (71) Applicant (for US only): HICKS, Robert [GB/GB]; 8 Hereford Mead, Fleet, Hampshire GU51 2TN (GB).

- (72) Inventor; and
- (75) Inventor/Applicant (for US only): NORSTER, Eric [GB/GB]; Norster Combustion Research, High Street, Harby, Newark, Nottinghamshire NG23 7EB (GB).
- (74) Agent: MILLER, James, Lionel, Woolverton; Kilburn & Strode, 20 Red Lion Street, London WC1R 4PJ (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: A COMBUSTION DEVICE



(57) Abstract: A combustor (1) has a swirler (22). The swirler has mixing channels (40), the mixing channels having a height/width aspect ratio of less than (2). A secondary fuel inlet (32) is located downstream of mixing channel (40) and may be in a zone (65) of separated flow. Primary fuel admission may be through a threaded or push fit circular movable plug (100). The plug (100) may be conveniently removed for calibration purposes and may have a bell-mouthed entrance.

WO 2004/057236 A2



ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

without international search report and to be republished upon receipt of that report